CROP PROFITABILITY SIMULATOR [CPS]

USER MANUAL

Version 1.0

Submitted in partial fulfillment of the requirements for the degree

MASTER OF SOFTWARE ENGINEERING

By

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CIS-895 MSE Project, Spring 2010
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Table of Contents

1 Introduction ……...01
2 Software Installation ……02
2.1 Required Hardware ……02
2.2 Required Software……..02
2.2.1 Required Software CPS Web App……..02
2.2.2 Required Software CPS IPhone App ……02
2.3 Install CPS Software and Setup ……03
2.3.1 Load Database ……03
2.3.2 Install CPS Web Application ……06
2.3.3 Install CPS Web Service ……09
2.3.4 Install CPS IPhone Client ……..12
3 CPS Software Operation ……...13
3.1 CPS Web Application Operation……13
3.1.1 Home (Main Home Page) ……..13
3.1.2 FAQ ……...14
3.1.3 Contact Us ……..15
3.1.4 About CPS……..15
3.1.5 Simulator ……15
3.1.5.1 Configure a Plan ……16
3.1.5.2 View Summary ……..17
3.1.5.3 Expected Variation ……17
3.1.5.4 Comparing Multiple Plans …….....18
3.1.5.5 Summary Details and Print ……20
3.2 CPS IPhone Application Operation ……...21
3.2.1 Simulator ……21
3.2.1.1 Configure a Plan ……23
3.2.1.2 Configure Crops, Crop System and Land Type …….....23
3.2.1.3 Expected Variation …….....25

3.2.1.4 Plan Comparison and Summary …….....25
4 Frequently Asked Questions (FAQ) and Troubleshooting ……...27
4.1 CPS IPhone Application FAQ ……...27
4.2 CPS Web Application FAQ ……...29
References……..30

Revision History

Name	Date	Changes	Version
Reza Nabi	04/24/2010	Initial draft is created	1.0
Reza Nabi	04/28/2010	Page number in table of content is updated	1.0

1 Introduction

The Whole Farm CPS Software allows farmers in Kansas and surrounding states to assess market risks for multiple farming plans, including conventional and organic farming methods.

In addition to the default values based on Kansas Farm Management Guides, the Simulator allows you to customize your calculations to your individual situations in terms of specific revenue and cost items and possible variability in price, yield, and cost. The whole farm profitability for multiple plans will be summarized in tabular format (and Graph for web client) for easy comparison. Detailed feature is available in section 3, Software Operation.

Figure 9.1.1 CPS Software Highlights

2 Software Installation

This section provides required hardware, software and installation process of CPS Software.

2.1 Required Hardware

- **DB Server:** Server should be equipped with at least 2.4 GHz CPU clock speed, 2 GB RAM and 120 GB Hard drive.
- **Web Server:** Server should be equipped with at least 2.4 GHz CPU clock speed, 2 GB RAM and 120 GB Hard drive.
- **iPhone Simulator:** Since iPhone client needs to be packaged by Apple Developer Program and we don't have the subscription yet, for now, we need Mac pc or Macbook, to test CPS iPhone client using built-in iPhone simulator in XCode.

NOTE: If client have limited resources, one physical machine with 4GB RAM and 250 GB hard drive playing both DB server and web server role should be sufficient as well.

2.2 Required Software

2.2.1 Required Software CPS Web App

- Microsoft Windows 2008 Server with Web Server role
- MS SQL Server 2008 or MS SQL Server 2005
- CPS Web Client MSI Package, Available online at http://home.nabi.us/CpsWeb/docs/PhaseIII/Setup/CpsWebClientSetup.msi
- CPS Web Service MSI Package, Available online at http://home.nabi.us/CpsWeb/docs/PhaseIII/Setup/CpsWebServiceSetup.msi
- CPS Database Installation Scripts, available online at http://home.nabi.us/CpsWeb/docs/PhaseIII/Setup/DatabaseSetup.zip

2.2.2 Required Software CPS iPhone App

- Mac OS 10.5 or Higher
- Apple iPhone Development Kit 3.0 or Higher
- XCode (IDE)
- CPS iPhone Client, Available online at http://home.nabi.us/CpsWeb/docs/PhaseIII/Setup/iPhoneClient.zip

NOTE: When iPhone application will be packaged by Apple, none of the above software is required. All we need is iPhone or iPod Touch with deployable CPS iPhone Application package.

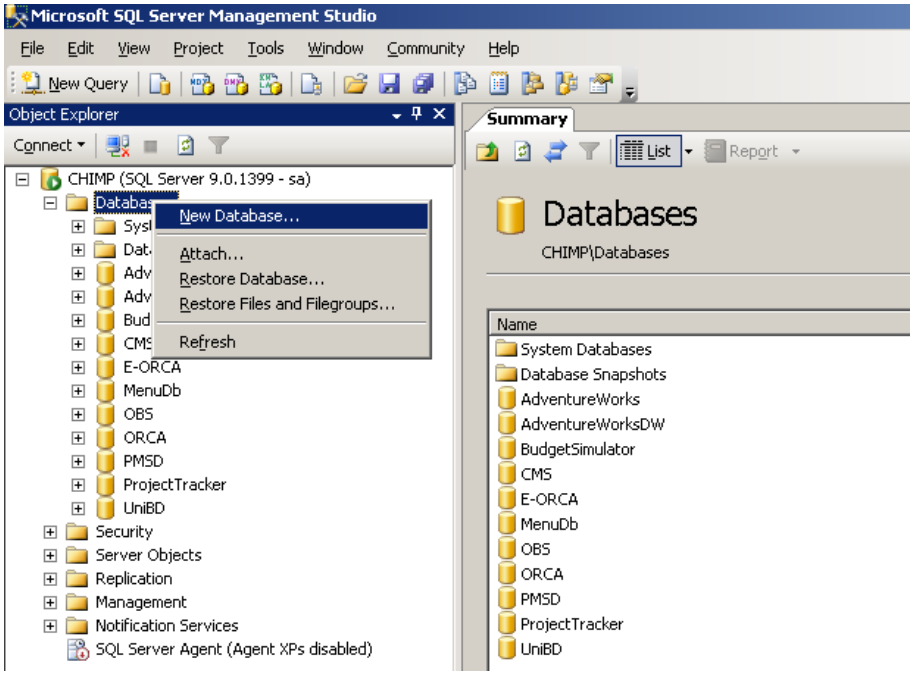
2.3 Install CPS Software and Setup

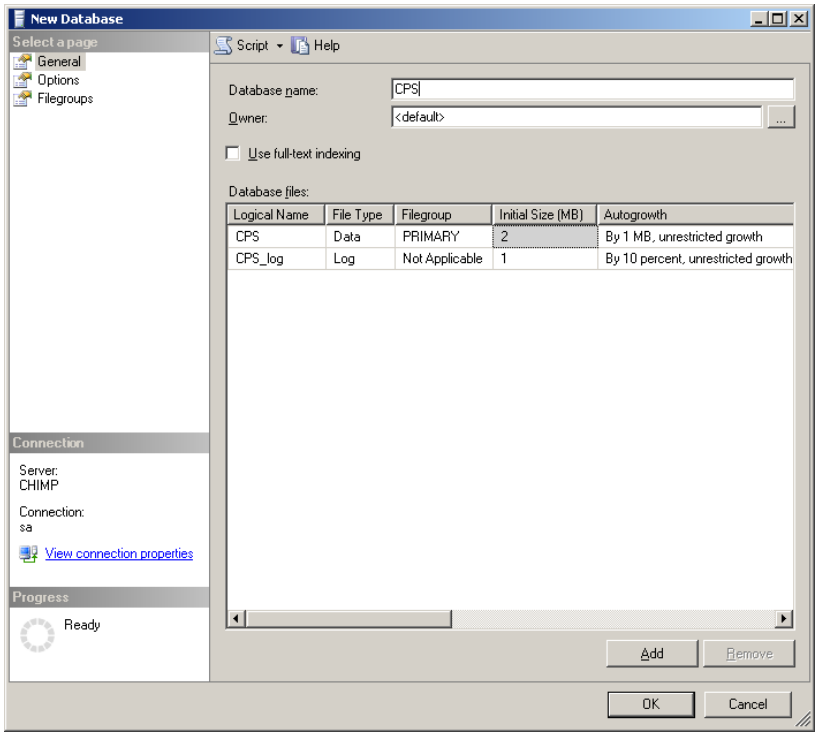
This section provides steps to load the database, setup web client, web service and iPhone application.

2.3.1 Load Database

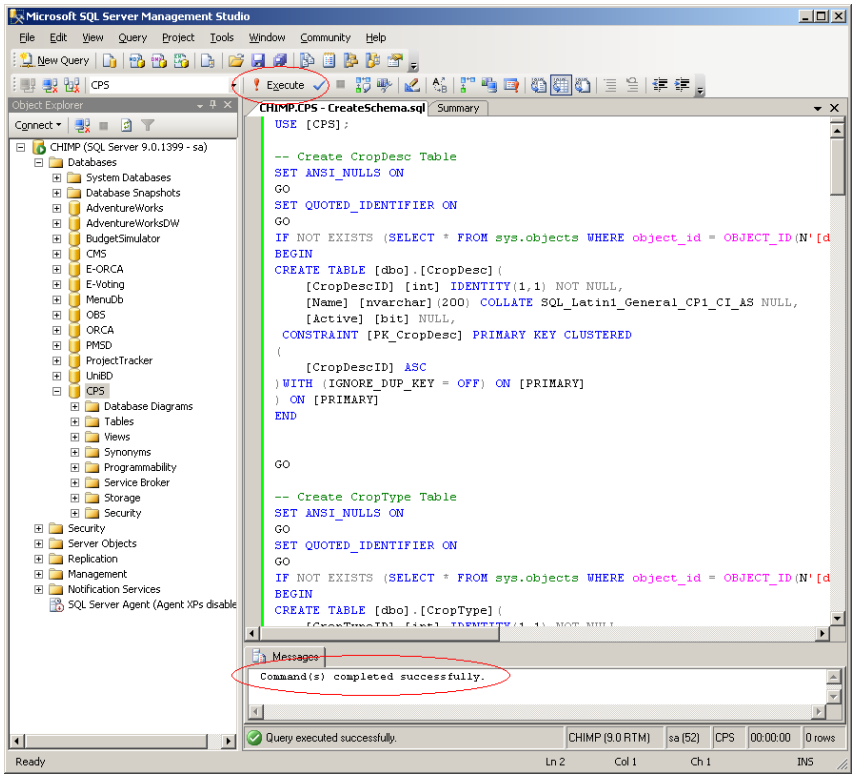
1 Download and unzip the Database Installation scripts available online at http://home.nabi.us/CpsWeb/docs/PhaseIII/Setup/DatabaseSetup.zip

2 Load SQL Server Management Studio and create a database called '**CPS**'.

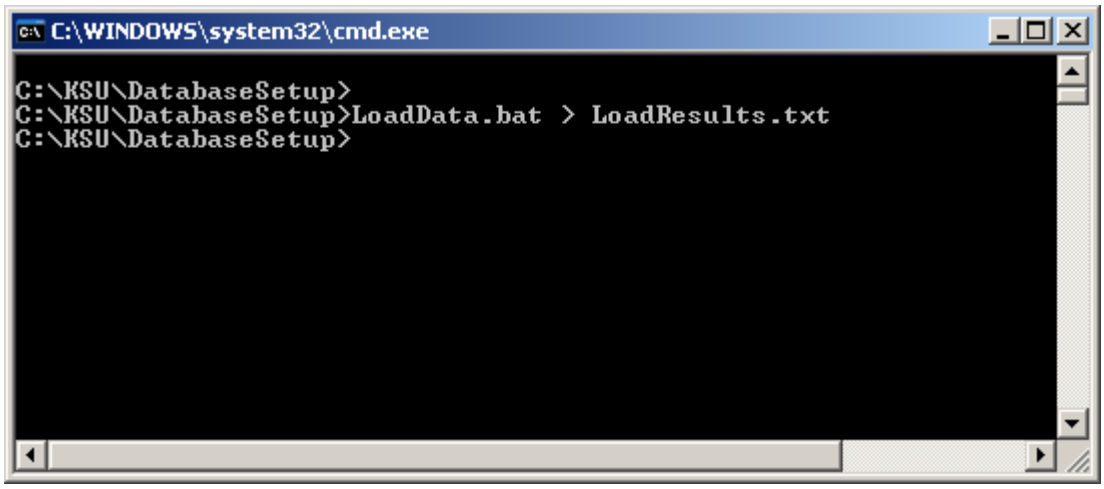




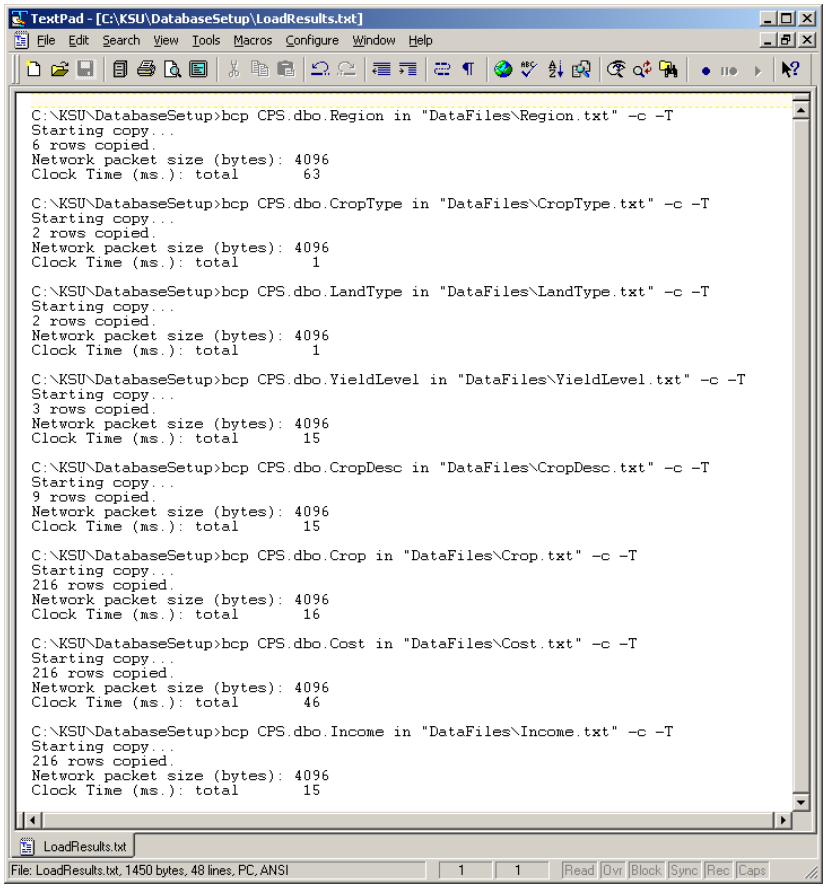
3 Load the CPS Schema by executing CreateSchema.sql which is available under DatabaseSetup folder.



4 Load the CPS data by running LoadData.bat like the following.



5 Verify that there is no error in LoadResults.txt file. Healthy logfile may look like the following.

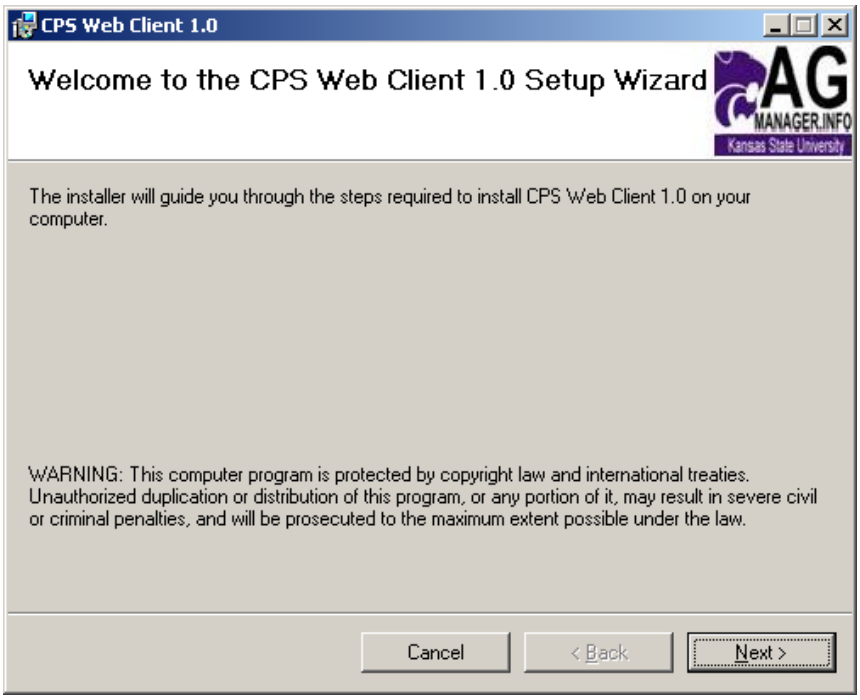

TextPad - [C:\KSU\DatabaseSetup\LoadResults.txt]
File Edit Search View Tools Macros Configure Window Help
C:\KSU\DatabaseSetup>bcp CPS.dbo.Region in "DataFiles\Region.txt" -c -T
Starting copy...
6 rows copied.
Network packet size (bytes): 4096
Clock Time (ms.): total 63
C:\KSU\DatabaseSetup>bcp CPS.dbo.CropType in "DataFiles\CropType.txt" -c -T
Starting copy...
2 rows copied.
Network packet size (bytes): 4096
Clock Time (ms.): total 1
C:\KSU\DatabaseSetup>bcp CPS.dbo.LandType in "DataFiles\LandType.txt" -c -T
Starting copy...
2 rows copied.
Network packet size (bytes): 4096
Clock Time (ms.): total 1
C:\KSU\DatabaseSetup>bcp CPS.dbo.YieldLevel in "DataFiles\YieldLevel.txt" -c -T
Starting copy...
3 rows copied.
Network packet size (bytes): 4096
Clock Time (ms.): total 15
C:\KSU\DatabaseSetup>bcp CPS.dbo.CropDesc in "DataFiles\CropDesc.txt" -c -T
Starting copy...
9 rows copied.
Network packet size (bytes): 4096
Clock Time (ms.): total 15
C:\KSU\DatabaseSetup>bcp CPS.dbo.Crop in "DataFiles\Crop.txt" -c -T
Starting copy...
216 rows copied.
Network packet size (bytes): 4096
Clock Time (ms.): total 16
C:\KSU\DatabaseSetup>bcp CPS.dbo.Cost in "DataFiles\Cost.txt" -c -T
Starting copy...
216 rows copied.
Network packet size (bytes): 4096
Clock Time (ms.): total 46
C:\KSU\DatabaseSetup>bcp CPS.dbo.Income in "DataFiles\Income.txt" -c -T
Starting copy...
216 rows copied.
Network packet size (bytes): 4096
Clock Time (ms.): total 15
LoadResults.txt
File: LoadResults.txt, 1450 bytes, 48 lines, PC, ANSI
Read Ovr Block Sync Rec Caps

2.3.2 Install CPS Web Application

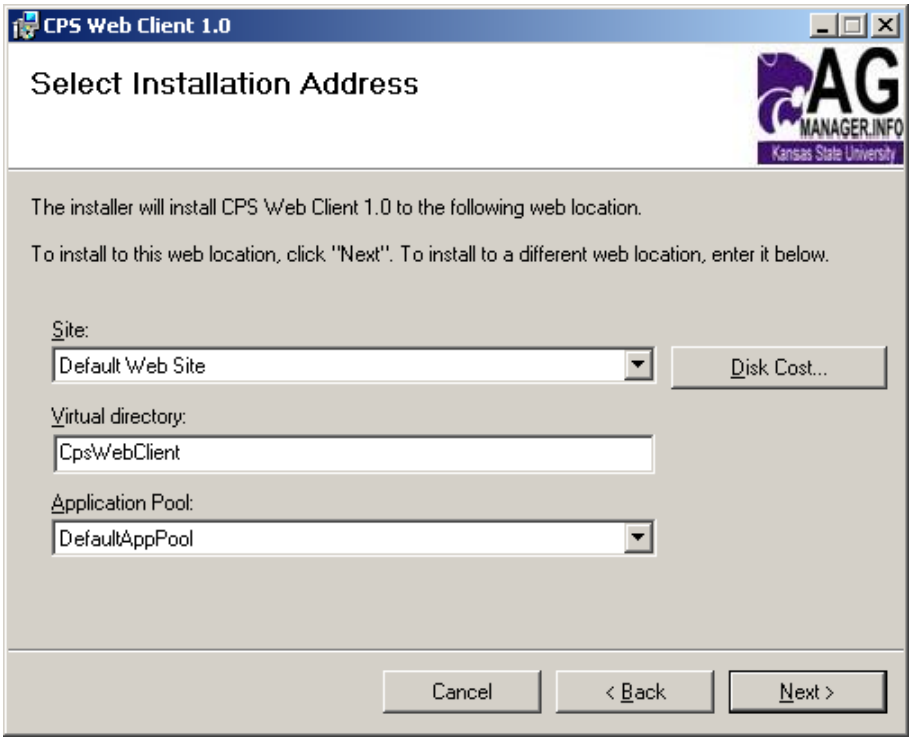
1 Download the CPS Web Client MSI Package, Available online at http://home.nabi.us/CpsWeb/docs/PhaseIII/Setup/CpsWebClientSetup.msi

2 Double-click the CpsWebClientSetup.msi file and load the CPS Web Client 1.0 setup wizard

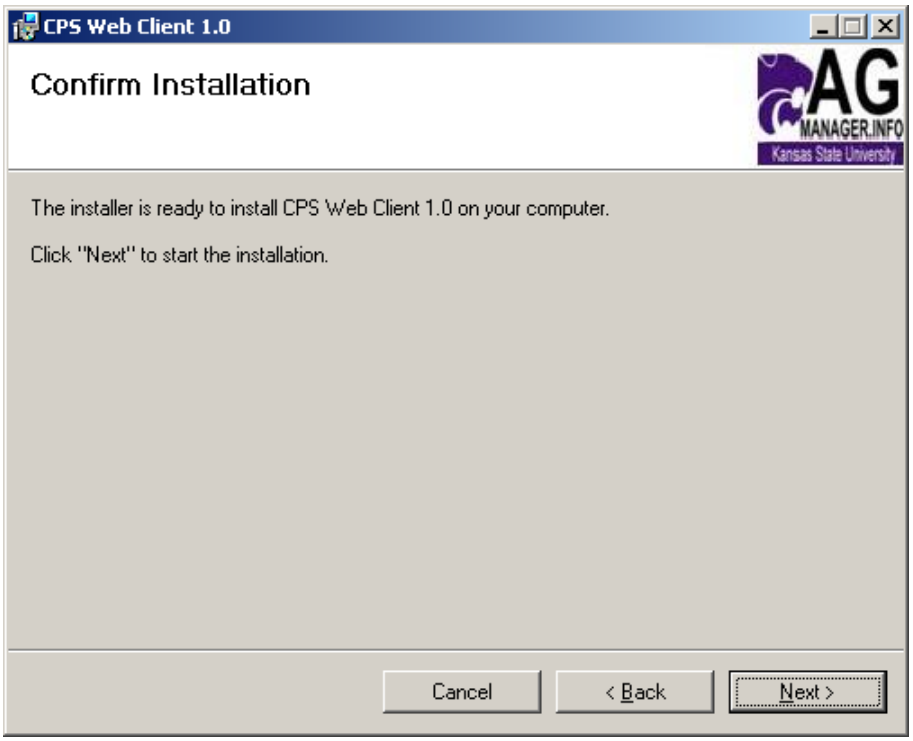
3 Click on 'Next' button to continue

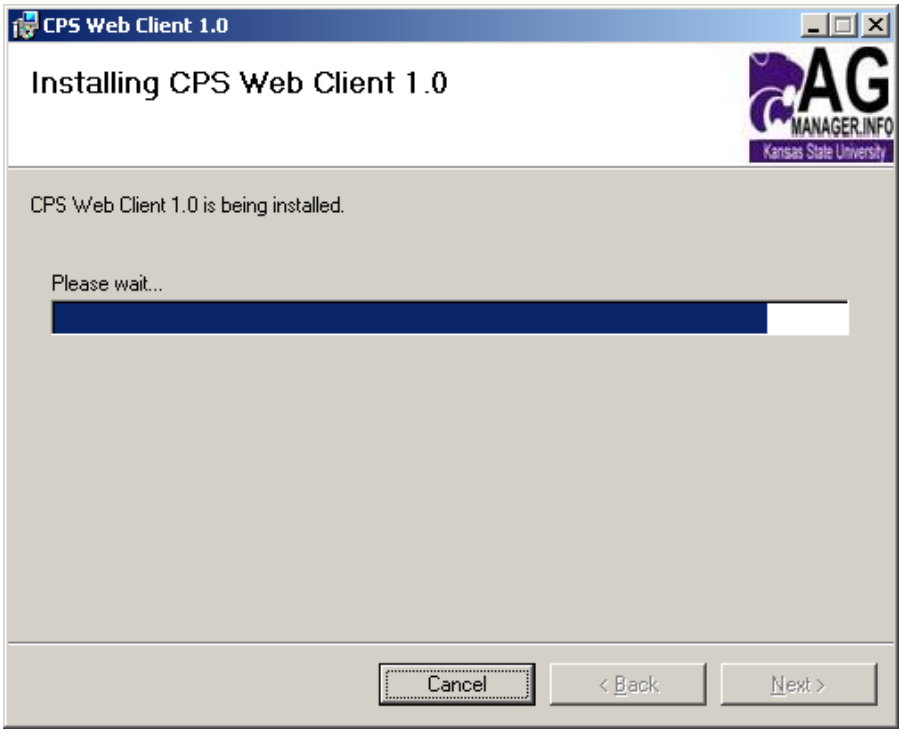

CPS Web Client 1.0
Welcome to the CPS Web Client 1.0 Setup Wizard
AG
MANAGER.INFO
Kansas State University
The installer will guide you through the steps required to install CPS Web Client 1.0 on your computer.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >

4 Provide the installation address you like and click 'Next' to continue. By default, **CPSWebClient** is set as virtual directory for the web application. You may change it to any meaningful name you like (e.g. **CPSWeb**).

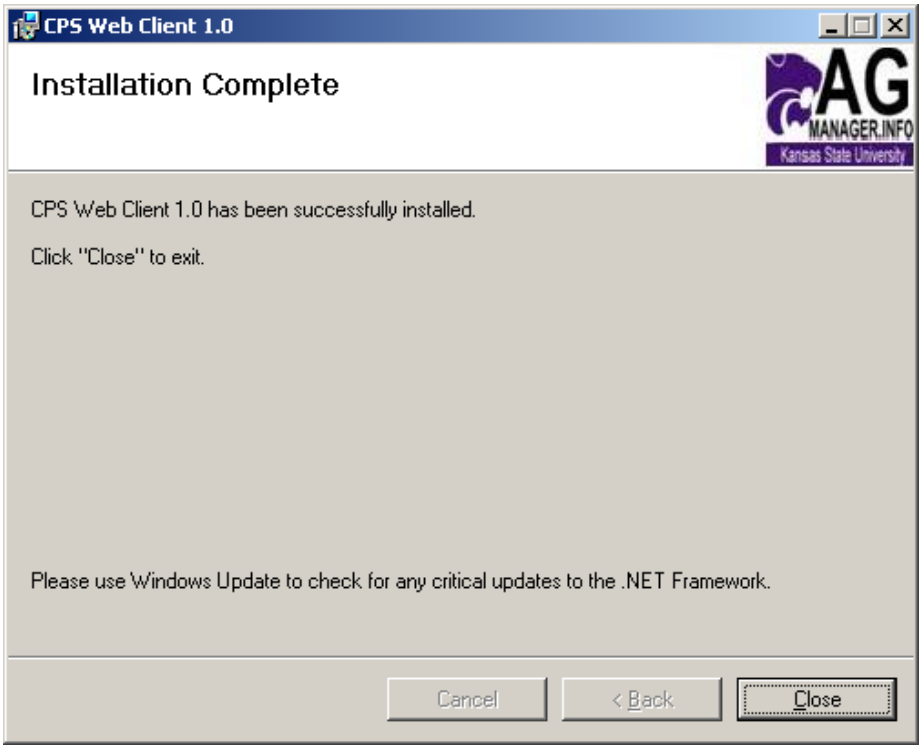


5 Click ‘Next’ to begin installation.





6 CPS Web Application (Client) installation complete. Click on ‘Close’ to exit the setup wizard.

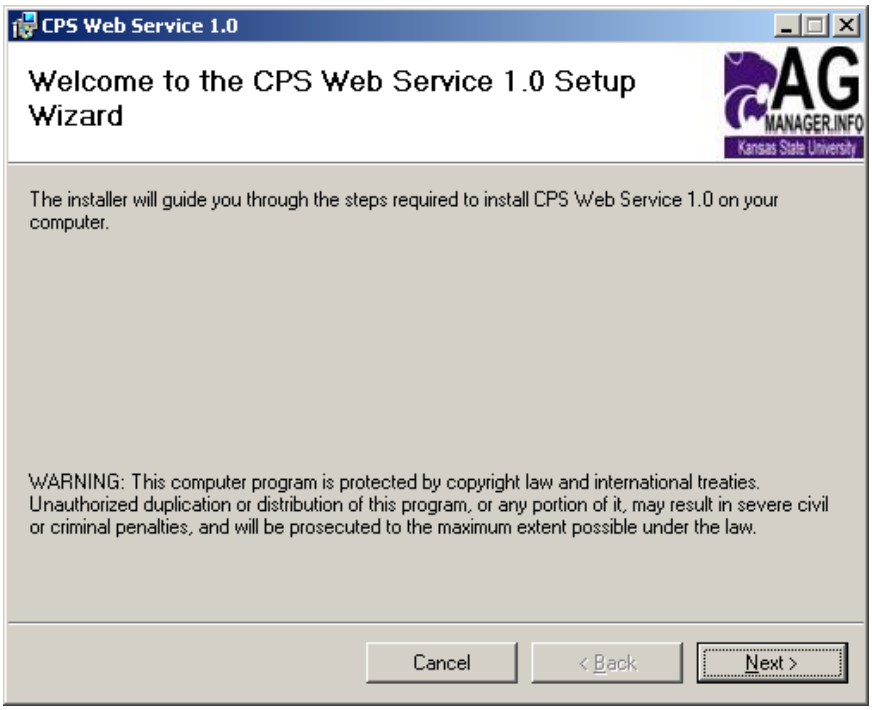


2.3.3 Install CPS Web Service

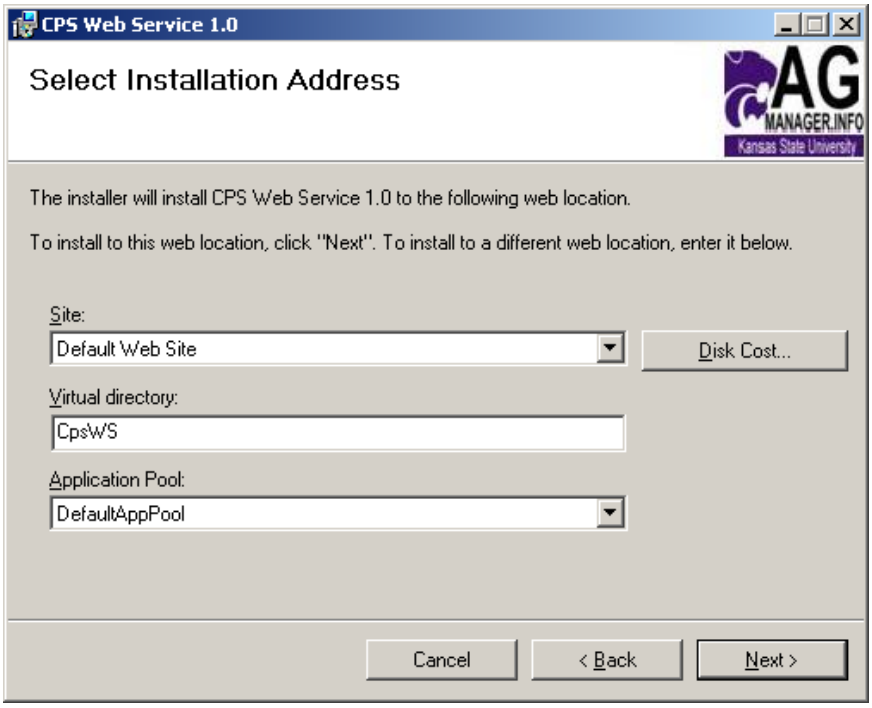
1 Download the CPS Web Service MSI Package, Available online at http://home.nabi.us/CpsWeb/docs/PhaseIII/Setup/CpsWebService.msi

2 Double-click the **CpsWebServiceSetup.msi** file and load the CPS Web Service 1.0 setup wizard

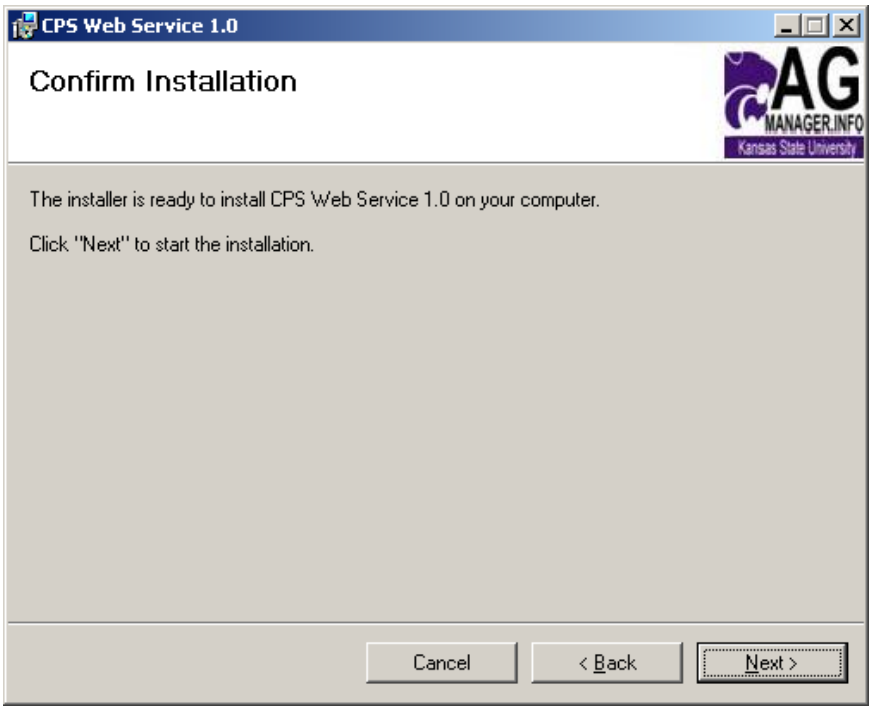
3 Click on 'Next' button to continue

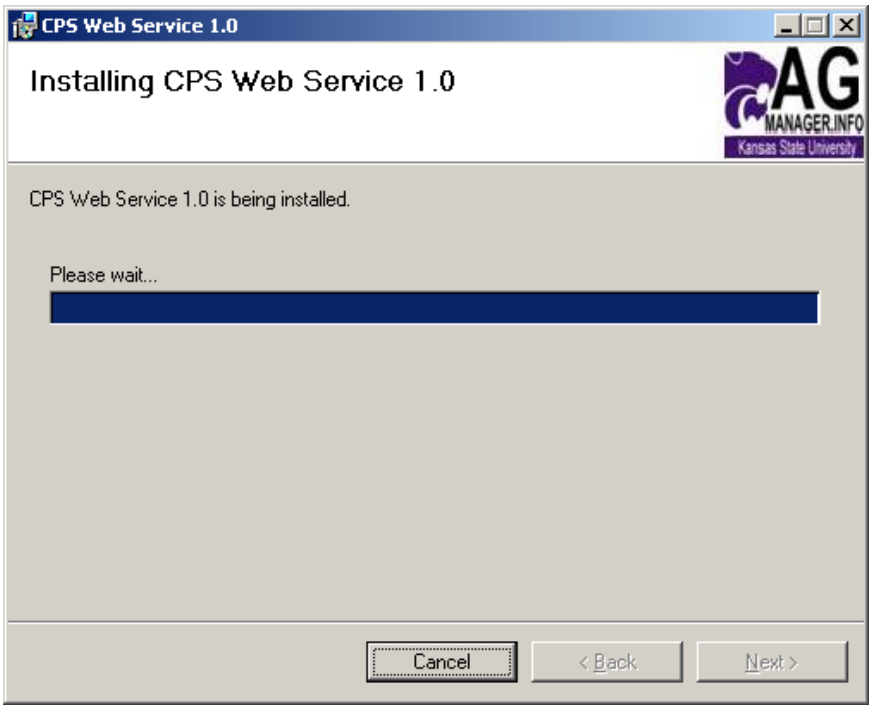

CPS Web Service 1.0
Welcome to the CPS Web Service 1.0 Setup Wizard
AG MANAGER.INFO
Kansas State University
The installer will guide you through the steps required to install CPS Web Service 1.0 on your computer.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >

4 Provide the installation address you like and click 'Next' to continue.

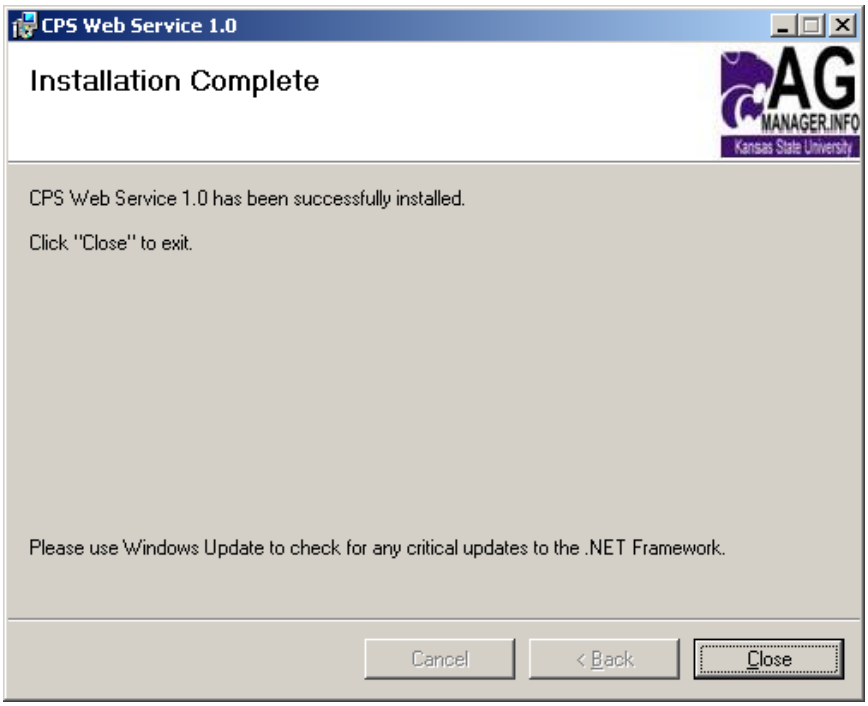


5 Click ‘Next’ to begin installation.





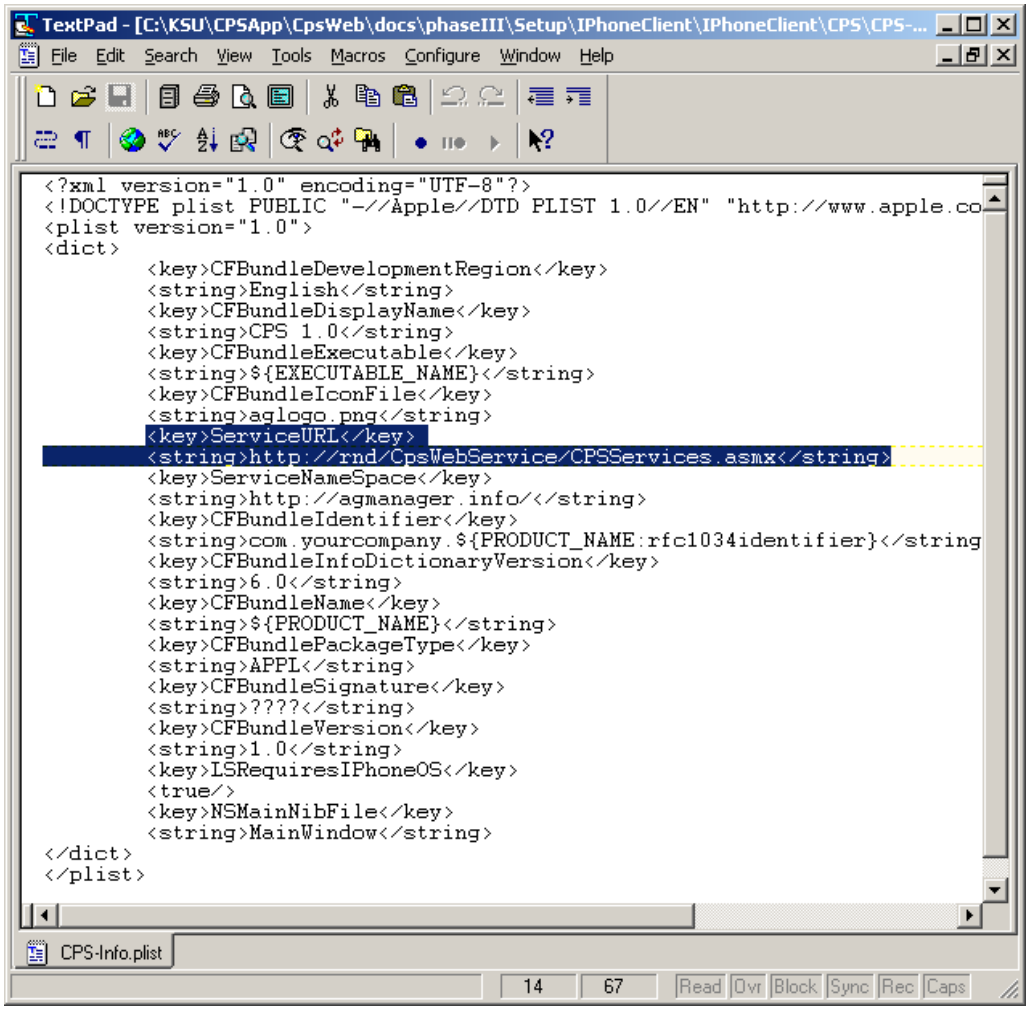
6 CPS Web Service installation is complete. Click on ‘Close’ to exit the setup wizard.



2.3.4 Install CPS iPhone Client

1 Download CPS iPhone Application Source Code, Available online at http://home.nabi.us/CpsWeb/docs/PhaseIII/Setup/iPhoneClient.zip, to MacBook or Mac PC where iPhoneSDK 3.0 (or higher) and XCode is installed.

2 Open up CPS-Info.plist file and make sure SeriveURL is pointed to the correct address where you have installed in section 2.3.3.



3 Double click on CPS project file (**CPS.xcodeproj**) and load the iPhone application on XCode IDE.

4 Click on “Build and Go” to load the CPS iPhone Application using iPhone Simulator.

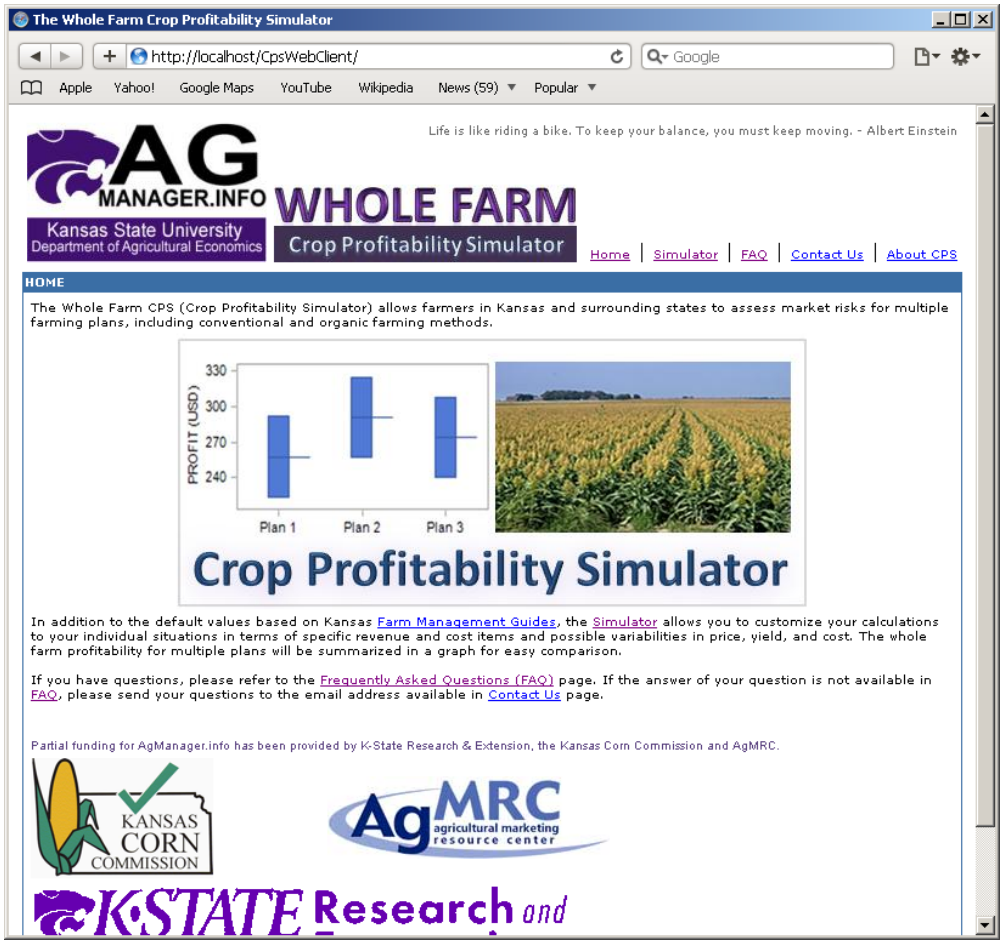
3 CPS Software Operation

This section provides instructions on how to use the CPS Software.

3.1 CPS Web Application Operation

3.1.1 Home (Main Home Page)

Using your favorite browser hit the address where you have installed the CPS Web Application (Client). Developer's CPS Web application (Client) is accessible at http://home.nabi.us/CpsWeb/Default.aspx


The Whole Farm Crop Profitability Simulator
http://localhost/CpsWebClient/
Google
Apple
Yahoo!
Google Maps
YouTube
Wikipedia
News (59)
Popular
Life is like riding a bike. To keep your balance, you must keep moving. - Albert Einstein
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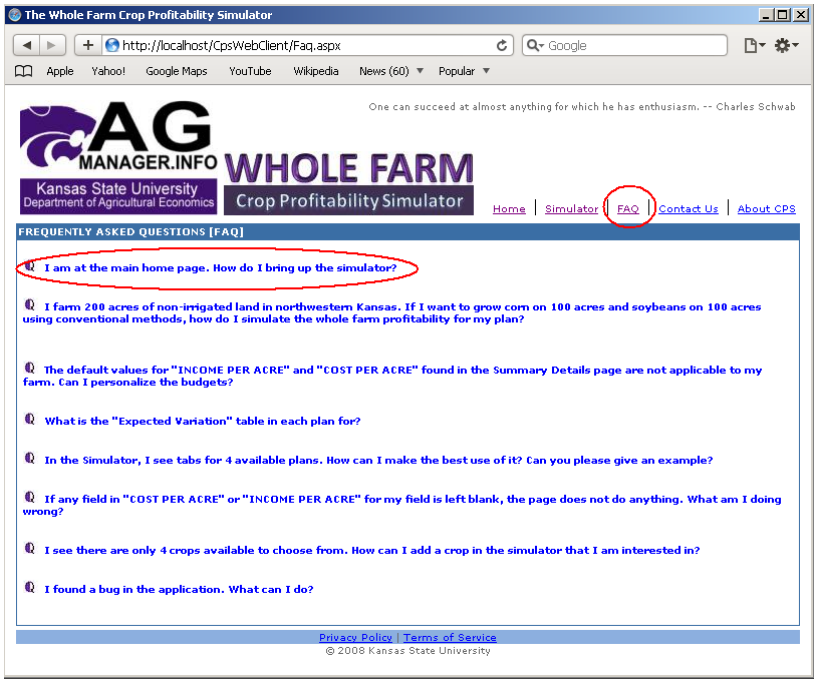
WHOLE FARM
Crop Profitability Simulator
Home | Simulator | FAQ | Contact Us | About CPS
HOME
The Whole Farm CPS (Crop Profitability Simulator) allows farmers in Kansas and surrounding states to assess market risks for multiple farming plans, including conventional and organic farming methods.
330
300
270
240
PROFIT (USD)
Plan 1
Plan 2
Plan 3
Crop Profitability Simulator
In addition to the default values based on Kansas Farm Management Guides, the Simulator allows you to customize your calculations to your individual situations in terms of specific revenue and cost items and possible variabilities in price, yield, and cost. The whole farm profitability for multiple plans will be summarized in a graph for easy comparison.
If you have questions, please refer to the Frequently Asked Questions (FAQ) page. If the answer of your question is not available in FAQ, please send your questions to the email address available in Contact Us page.
Partial funding for AgManager.info has been provided by K-State Research & Extension, the Kansas Corn Commission and AgMRC.
KANSAS CORN COMMISSION
AgMRC agricultural marketing resource center
K-STATE Research and

3.1.2 FAQ

From the main home, click on 'FAQ' hyper link, to load FAQ page. Click on question to view the answer of the question.


The Whole Farm Crop Profitability Simulator
http://localhost/CpsWebClient/Faq.aspx
Apple Yahoo! Google Maps YouTube Wikipedia News (60) Popular
One can succeed at almost anything for which he has enthusiasm. -- Charles Schwab
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Home | Simulator | FAQ | Contact Us | About CPS
FREQUENTLY ASKED QUESTIONS [FAQ]
I am at the main home page. How do I bring up the simulator?
I farm 200 acres of non-irrigated land in northwestern Kansas. If I want to grow corn on 100 acres and soybeans on 100 acres using conventional methods, how do I simulate the whole farm profitability for my plan?
The default values for "INCOME PER ACRE" and "COST PER ACRE" found in the Summary Details page are not applicable to my farm. Can I personalize the budgets?
What is the "Expected Variation" table in each plan for?
In the Simulator, I see tabs for 4 available plans. How can I make the best use of it? Can you please give an example?
If any field in "COST PER ACRE" or "INCOME PER ACRE" for my field is left blank, the page does not do anything. What am I doing wrong?
I see there are only 4 crops available to choose from. How can I add a crop in the simulator that I am interested in?
I found a bug in the application. What can I do?
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The Whole Farm Crop Profitability Simulator
http://localhost/CpsWebClient/Faq.aspx
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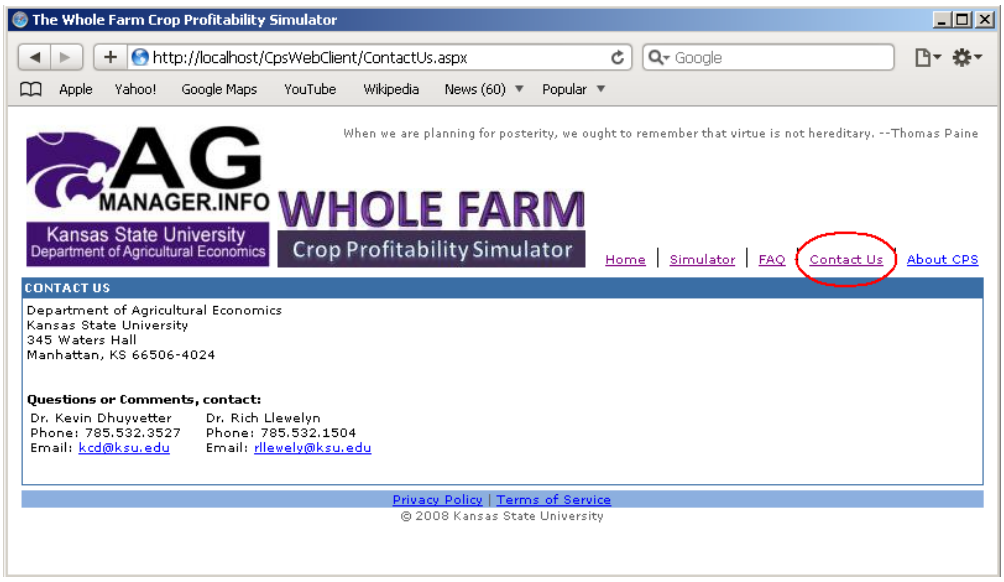
Crop Profitability Simulator
Home | Simulator | FAQ | Contact Us | About CPS
FREQUENTLY ASKED QUESTIONS [FAQ]
I am at the main home page. How do I bring up the simulator?
Click on the 'Simulator' hyperlink on the top navigation bar. You can also bring up the simulator by clicking on 'Crop Profitability Simulator' image.
Crop Profitability Simulator
HOME
The Whole Farm CPS (Crop Profitability Simulator) allows farmers in Kansas and surrounding states to assess market risks for multiple farming plans, including conventional and organic farming methods.
PROFIT (USD)
330
300
270
240
Plan 1
Plan 2
Plan 3
Crop Profitability Simulator
In addition to the default values based on Kansas Farm Management Guides, the Simulator allows you to customize your calculations to your individual situations in terms of specific revenue and cost items and possible variabilities in price, yield, and cost. The whole farm profitability for multiple plans will be summarized in a graph for easy comparison.
If you have questions, please refer to the Frequently Asked Questions (FAQ) page. If the answer of your question is not available in FAQ, please send your questions to the email address available in Contact Us page.
I farm 200 acres of non-irrigated land in northwestern Kansas. If I want to grow corn on 100 acres and soybeans on 100 acres using conventional methods, how do I simulate the whole farm profitability for my plan?

3.1.3 Contact Us

Click on ‘Contact us’, link view the contacts of general questions or comments.


The Whole Farm Crop Profitability Simulator
http://localhost/CpsWebClient/ContactUs.aspx
Google
Apple Yahoo! Google Maps YouTube Wikipedia News (60) Popular
When we are planning for posterity, we ought to remember that virtue is not hereditary. --Thomas Paine
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CONTACT US
Department of Agricultural Economics
Kansas State University
345 Waters Hall
Manhattan, KS 66506-4024
Questions or Comments, contact:
Dr. Kevin Dhuyvetter
Phone: 785.532.3527
Email: kcd@ksu.edu
Dr. Rich Llewelyn
Phone: 785.532.1504
Email: rllewely@ksu.edu
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3.1.4 About CPS

Click on 'About CPS' link to view the name of the product, version and copyright information.

The Whole Farm Crop Profitability Simulator
http://localhost/CpsWeb/AboutCPS.aspx
Google
Apple Yahoo! Google Maps YouTube Wikipedia News (60) Popular
When we are planning for posterity, we ought to remember that virtue is not hereditary. --Thomas Paine
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ABOUT CPS
Crop Profitability Simulator [CPS]
Version - 1.0
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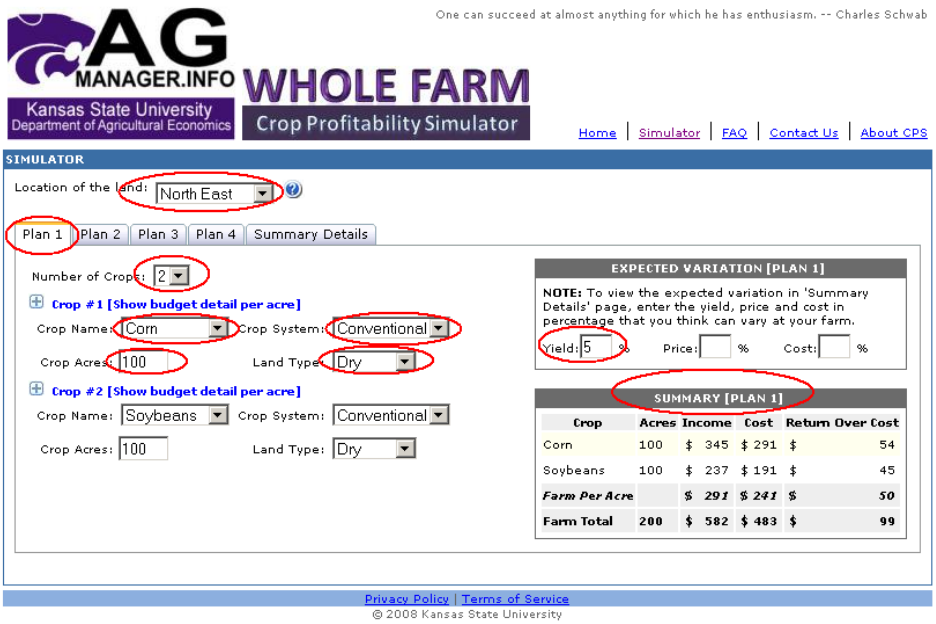
3.1.5 Simulator

Click on 'Simulator' link to bring up the main Crop Profitability Simulator [CPS] application.

3.1.5.1 Configure a Plan

Configuring a plan is a 4 step process:

- Select location of the land.
- Select how many crops you would like to include in this plan
- Enter Crop, Crop System, Land Type and Crop Acre for each crop
- Enter Expected Variation if you would like to see best and worst scenario of your profit (return over cost).


One can succeed at almost anything for which he has enthusiasm. -- Charles Schwab
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Department of Agricultural Economics
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Crop Profitability Simulator
Home | Simulator | FAQ | Contact Us | About CPS
SIMULATOR
Location of the land: North East
Plan 1 Plan 2 Plan 3 Plan 4 Summary Details
Number of Crops: 2
Crop #1 [Show budget detail per acre]
Crop Name: Corn
Crop System: Conventional
Crop Acres: 100
Land Type: Dry
Crop #2 [Show budget detail per acre]
Crop Name: Soybeans
Crop System: Conventional
Crop Acres: 100
Land Type: Dry
EXPECTED VARIATION [PLAN 1]
NOTE: To view the expected variation in 'Summary Details' page, enter the yield, price and cost in percentage that you think can vary at your farm.
Yield: 5 % Price: % Cost: %
SUMMARY [PLAN 1]
Crop Acres Income Cost Return Over Cost
Corn 100 $ 345 $ 291 $ 54
Soybeans 100 $ 237 $ 191 $ 45
Farm Per Acre $ 291 $ 241 $ 50
Farm Total 200 $ 582 $ 483 $ 99
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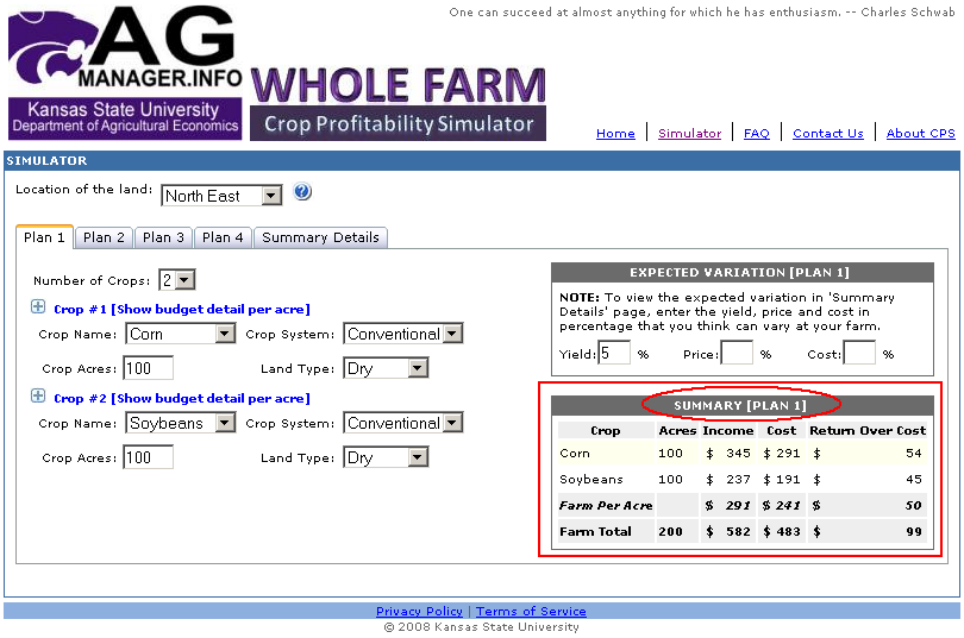
3.1.5.2 View Summary

As user configures a plan, Summary is updated automatically.


One can succeed at almost anything for which he has enthusiasm. -- Charles Schwab
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WHOLE FARM
Crop Profitability Simulator
Home | Simulator | FAQ | Contact Us | About CPS
SIMULATOR
Location of the land: North East
Plan 1 | Plan 2 | Plan 3 | Plan 4 | Summary Details
Number of Crops: 2
Crop #1 [Show budget detail per acre]
Crop Name: Corn Crop System: Conventional
Crop Acres: 100 Land Type: Dry
Crop #2 [Show budget detail per acre]
Crop Name: Soybeans Crop System: Conventional
Crop Acres: 100 Land Type: Dry
EXPECTED VARIATION [PLAN 1]
NOTE: To view the expected variation in 'Summary Details' page, enter the yield, price and cost in percentage that you think can vary at your farm.
Yield: 5 % Price: % Cost: %
SUMMARY [PLAN 1]
Crop | Acres | Income | Cost | Return Over Cost
Corn | 100 | $ 345 | $ 291 | $ 54
Soybeans | 100 | $ 237 | $ 191 | $ 45
Farm Per Acre | | $ 291 | $ 241 | $ 50
Farm Total | 200 | $ 582 | $ 483 | $ 99
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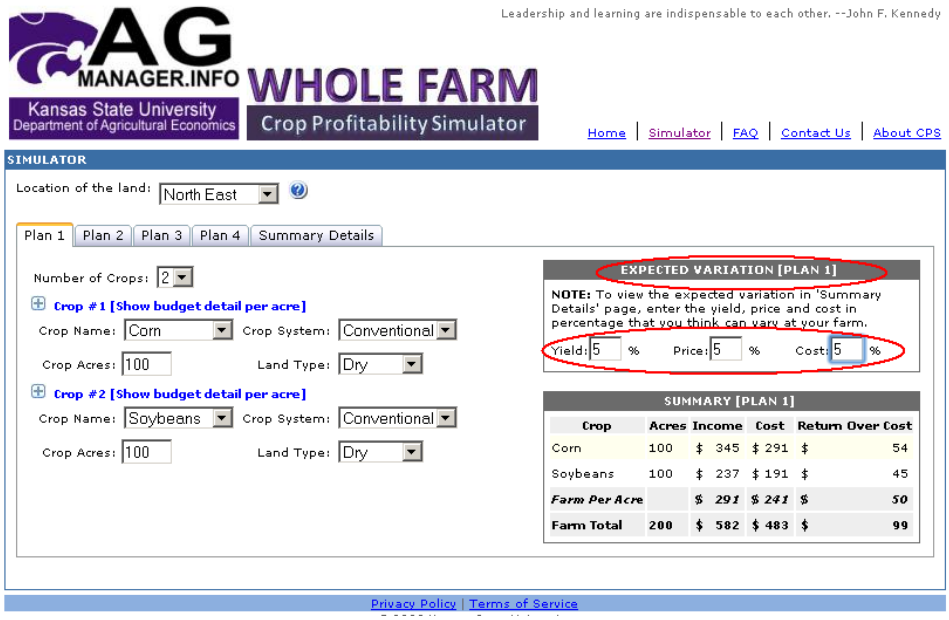
3.1.5.3 Expected Variation

For each plan, there will be an “Expected Variation” table where user can enter “Yield”, “Cost” and “Price” that can vary at user’s farm. The expected variation data helps to the best and worst estimate of profit along with the average.


Leadership and learning are indispensable to each other. --John F. Kennedy
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WHOLE FARM
Crop Profitability Simulator
Home | Simulator | FAQ | Contact Us | About CPS
SIMULATOR
Location of the land: North East
Plan 1 | Plan 2 | Plan 3 | Plan 4 | Summary Details
Number of Crops: 2
Crop #1 [Show budget detail per acre]
Crop Name: Corn Crop System: Conventional
Crop Acres: 100 Land Type: Dry
Crop #2 [Show budget detail per acre]
Crop Name: Soybeans Crop System: Conventional
Crop Acres: 100 Land Type: Dry
EXPECTED VARIATION [PLAN 1]
NOTE: To view the expected variation in 'Summary Details' page, enter the yield, price and cost in percentage that you think can vary at your farm.
Yield: 5 % Price: 5 % Cost: 5 %
SUMMARY [PLAN 1]
Crop | Acres | Income | Cost | Return Over Cost
Corn | 100 | $ 345 | $ 291 | $ 54
Soybeans | 100 | $ 237 | $ 191 | $ 45
Farm Per Acre | | $ 291 | $ 241 | $ 50
Farm Total | 200 | $ 582 | $ 483 | $ 99
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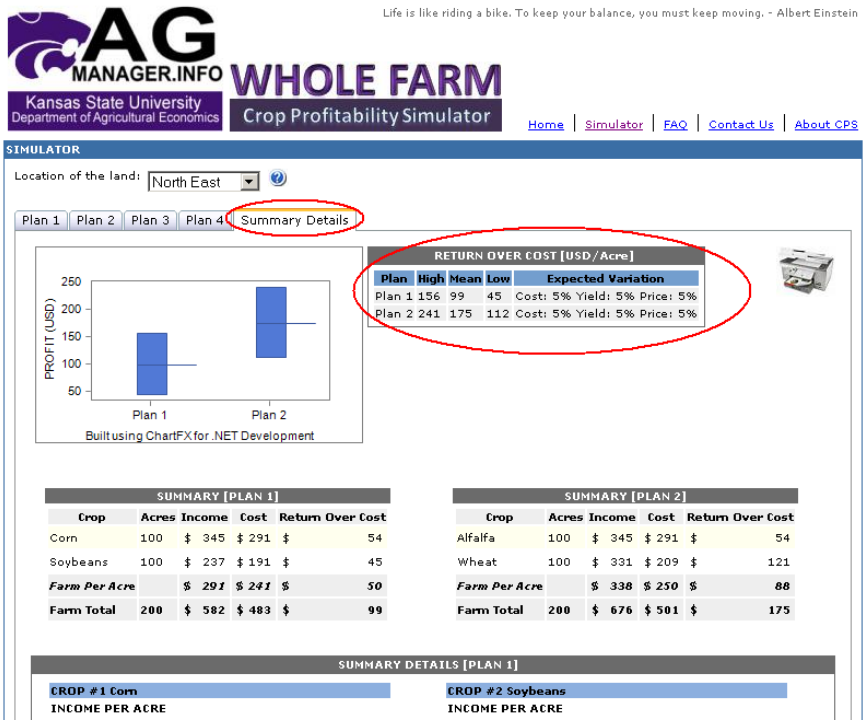
SIMULATOR
Location of the land: North East
Plan 1 Plan 2 Plan 3 Plan 4 Summary Details
RETURN OVER COST [USD/Acre]
Plan High Mean Low Expected Variation
Plan 1 156 99 45 Cost: 5% Yield: 5% Price: 5%
PROFIT (USD)
150
120
90
60
Plan 1
Built using ChartFX for .NET Development
SUMMARY [PLAN 1]
Crop Acres Income Cost Return Over Cost
Corn 100 $ 345 $ 291 $ 54
Soybeans 100 $ 237 $ 191 $ 45
Farm Per Acre $ 291 $ 241 $ 50

3.1.5.4 Comparing Multiple Plans

Configure multiple plan and then click on 'Summary Details' tab. This will display comparison of plans you have configured side-by-side.


Life is like riding a bike. To keep your balance, you must keep moving. - Albert Einstein
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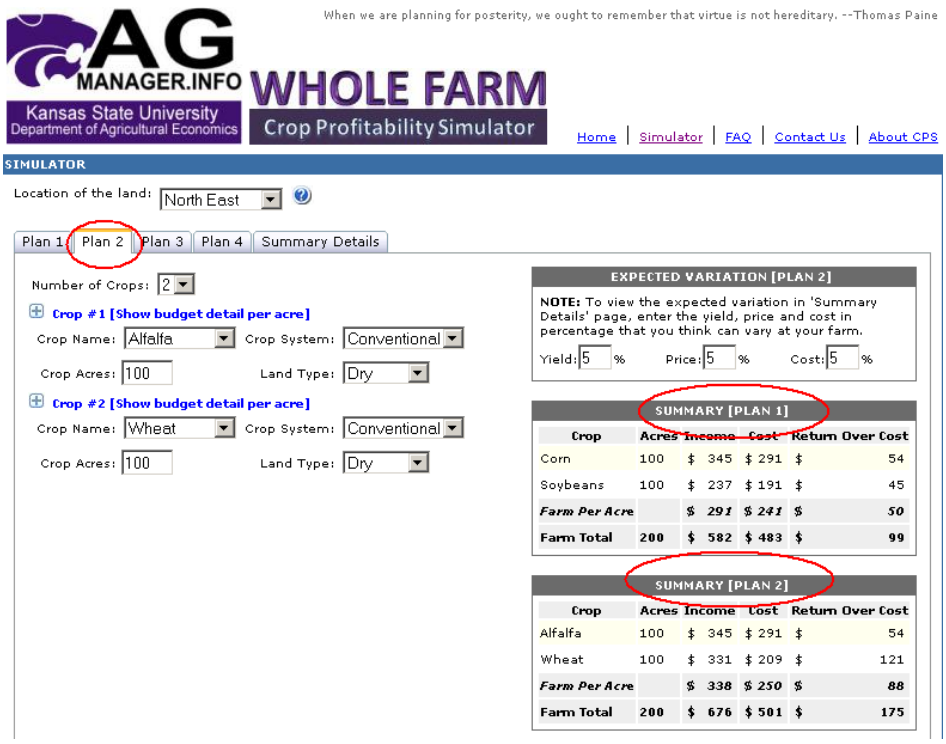
SIMULATOR
Location of the land: North East
Plan 1 Plan 2 Plan 3 Plan 4 Summary Details
RETURN OVER COST [USD/Acre]
Plan High Mean Low Expected Variation
Plan 1 156 99 45 Cost: 5% Yield: 5% Price: 5%
Plan 2 241 175 112 Cost: 5% Yield: 5% Price: 5%
PROFIT (USD)
250
200
150
100
50
Plan 1
Plan 2
Built using ChartFX for .NET Development
SUMMARY [PLAN 1]
Crop Acres Income Cost Return Over Cost
Corn 100 $ 345 $ 291 $ 54
Soybeans 100 $ 237 $ 191 $ 45
Farm Per Acre $ 291 $ 241 $ 50
Farm Total 200 $ 582 $ 483 $ 99
SUMMARY [PLAN 2]
Crop Acres Income Cost Return Over Cost
Alfalfa 100 $ 345 $ 291 $ 54
Wheat 100 $ 331 $ 209 $ 121
Farm Per Acre $ 338 $ 250 $ 88
Farm Total 200 $ 676 $ 501 $ 175
SUMMARY DETAILS [PLAN 1]
CROP #1 Corn
INCOME PER ACRE
CROP #2 Soybeans
INCOME PER ACRE


When we are planning for posterity, we ought to remember that virtue is not hereditary. --Thomas Paine
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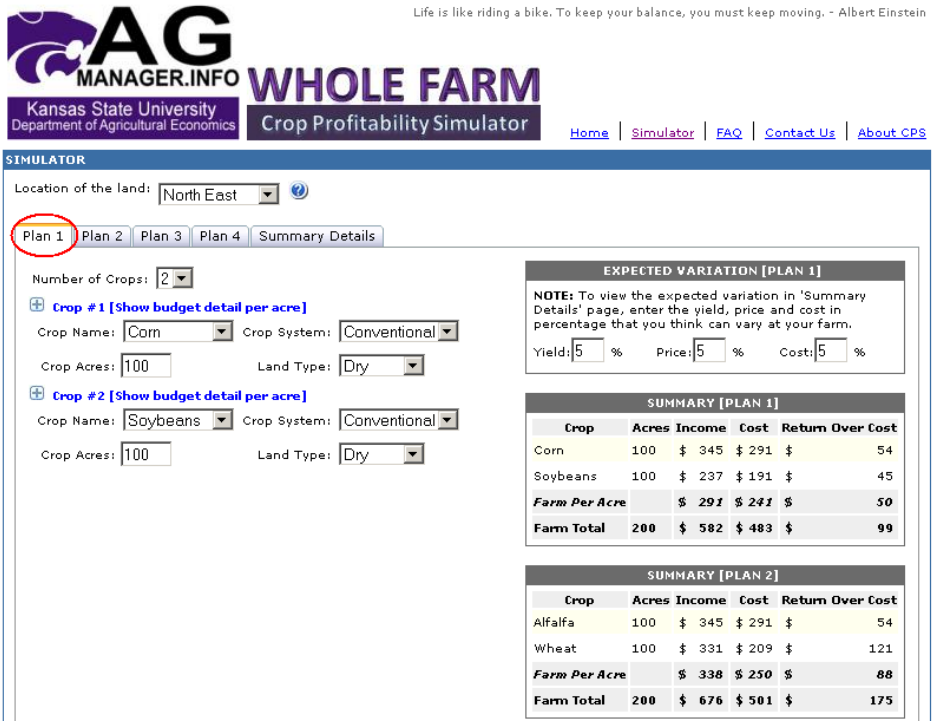
SIMULATOR
Location of the land: North East
Plan 1 | Plan 2 | Plan 3 | Plan 4 | Summary Details
Number of Crops: 2
Crop #1 [Show budget detail per acre]
Crop Name: Alfalfa
Crop System: Conventional
Crop Acres: 100
Land Type: Dry
Crop #2 [Show budget detail per acre]
Crop Name: Wheat
Crop System: Conventional
Crop Acres: 100
Land Type: Dry
EXPECTED VARIATION [PLAN 2]
NOTE: To view the expected variation in 'Summary Details' page, enter the yield, price and cost in percentage that you think can vary at your farm.
Yield: 5 % Price: 5 % Cost: 5 %
SUMMARY [PLAN 1]
Crop Acres Income Cost Return Over Cost
Corn 100 $ 345 $ 291 $ 54
Soybeans 100 $ 237 $ 191 $ 45
Farm Per Acre $ 291 $ 241 $ 50
Farm Total 200 $ 582 $ 483 $ 99
SUMMARY [PLAN 2]
Crop Acres Income Cost Return Over Cost
Alfalfa 100 $ 345 $ 291 $ 54
Wheat 100 $ 331 $ 209 $ 121
Farm Per Acre $ 338 $ 250 $ 88
Farm Total 200 $ 676 $ 501 $ 175


Life is like riding a bike. To keep your balance, you must keep moving. - Albert Einstein
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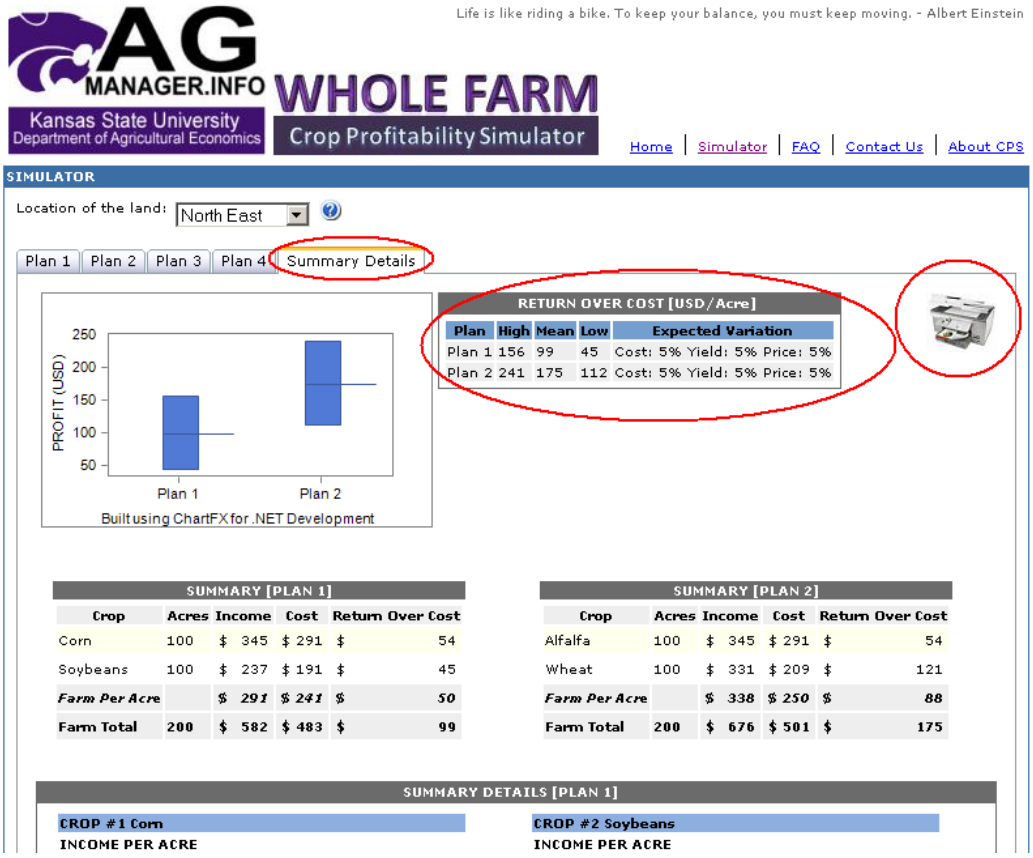
WHOLE FARM
Crop Profitability Simulator
Home | Simulator | FAQ | Contact Us | About CPS
SIMULATOR
Location of the land: North East
Plan 1 | Plan 2 | Plan 3 | Plan 4 | Summary Details
Number of Crops: 2
Crop #1 [Show budget detail per acre]
Crop Name: Corn
Crop System: Conventional
Crop Acres: 100
Land Type: Dry
Crop #2 [Show budget detail per acre]
Crop Name: Soybeans
Crop System: Conventional
Crop Acres: 100
Land Type: Dry
EXPECTED VARIATION [PLAN 1]
NOTE: To view the expected variation in 'Summary Details' page, enter the yield, price and cost in percentage that you think can vary at your farm.
Yield: 5 % Price: 5 % Cost: 5 %
SUMMARY [PLAN 1]
Crop Acres Income Cost Return Over Cost
Corn 100 $ 345 $ 291 $ 54
Soybeans 100 $ 237 $ 191 $ 45
Farm Per Acre $ 291 $ 241 $ 50
Farm Total 200 $ 582 $ 483 $ 99
SUMMARY [PLAN 2]
Crop Acres Income Cost Return Over Cost
Alfalfa 100 $ 345 $ 291 $ 54
Wheat 100 $ 331 $ 209 $ 121
Farm Per Acre $ 338 $ 250 $ 88
Farm Total 200 $ 676 $ 501 $ 175

3.1.5.5 Summary Details and Print

The summary along with its breakdown will be available for each plan in the "Summary Details" tab. The whole farm profitability (return over cost) for multiple plans will also be summarized in a graph for easy comparison with best/worst estimates when expected variation value is entered. User may print the detailed report by clicking on 'Print' icon.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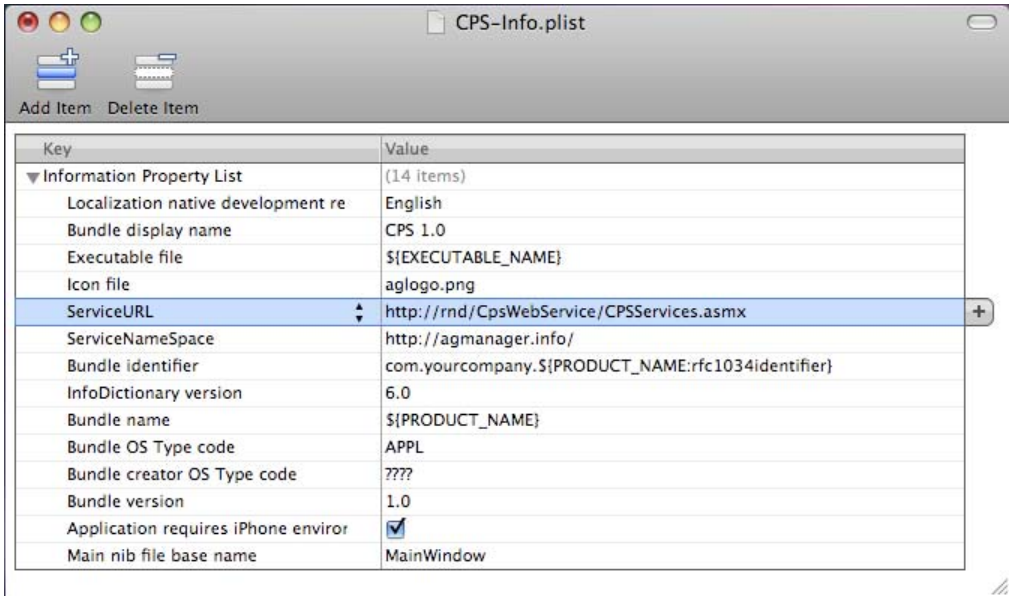
WHOLE FARM
Crop Profitability Simulator
Home | Simulator | FAQ | Contact Us | About CPS
SIMULATOR
Location of the land: North East
Plan 1 Plan 2 Plan 3 Plan 4 Summary Details
PROFIT (USD)
250
200
150
100
50
Plan 1
Plan 2
Built using ChartFX for .NET Development
RETURN OVER COST [USD/Acre]
Plan High Mean Low Expected Variation
Plan 1 156 99 45 Cost: 5% Yield: 5% Price: 5%
Plan 2 241 175 112 Cost: 5% Yield: 5% Price: 5%
SUMMARY [PLAN 1]
Crop Acres Income Cost Return Over Cost
Corn 100 $ 345 $ 291 $ 54
Soybeans 100 $ 237 $ 191 $ 45
Farm Per Acre $ 291 $ 241 $ 50
Farm Total 200 $ 582 $ 483 $ 99
SUMMARY [PLAN 2]
Crop Acres Income Cost Return Over Cost
Alfalfa 100 $ 345 $ 291 $ 54
Wheat 100 $ 331 $ 209 $ 121
Farm Per Acre $ 338 $ 250 $ 88
Farm Total 200 $ 676 $ 501 $ 175
SUMMARY DETAILS [PLAN 1]
CROP #1 Corn
INCOME PER ACRE
CROP #2 Soybeans
INCOME PER ACRE

3.2 CPS iPhone Application Operation

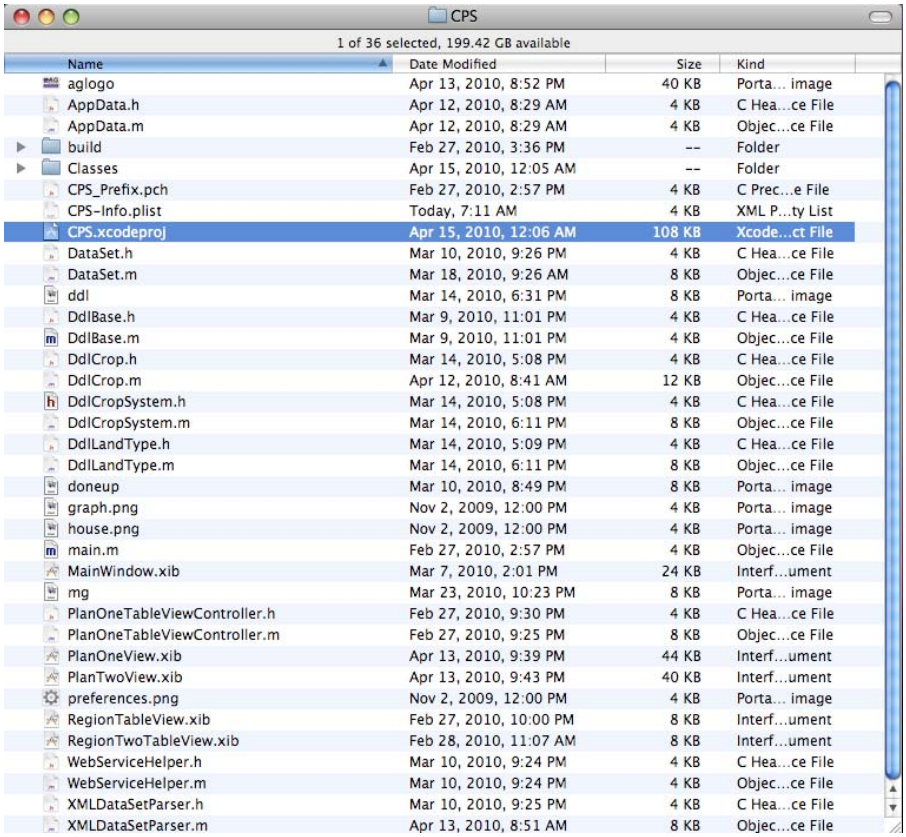
3.2.1 Simulator

Since the iPhone application is not packaged by Apple yet (which requires membership with Apple), the only way we can operate the iPhone application is via simulator built-in XCode, an IDE for iPhone development. To launch the CPS iPhone application, do the following:

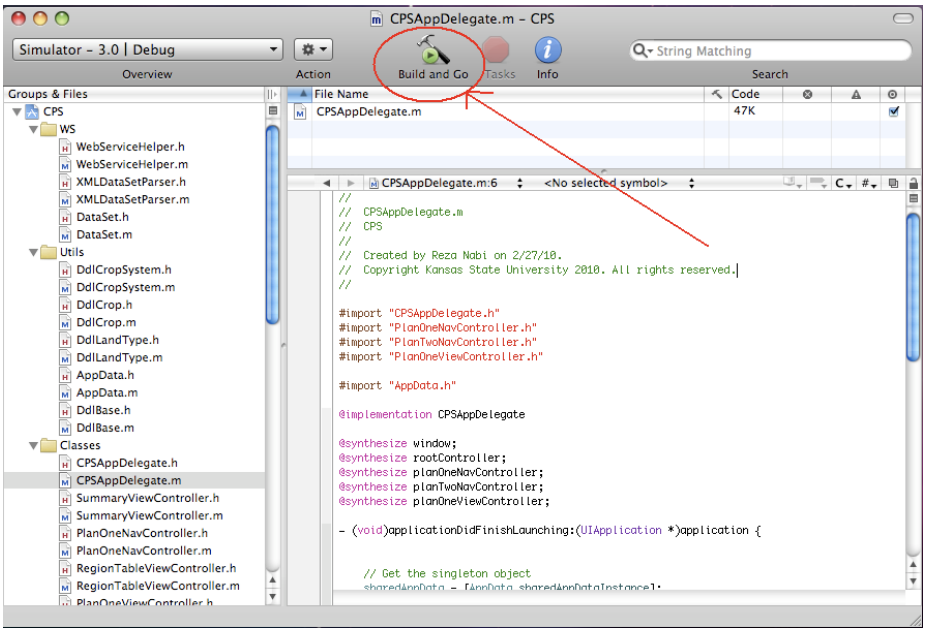
- Configure the Web Service URL for the iPhone Application. To do this, open CPS-Info.plist file and change the value of ServiceURL parameter that applies to your installation.



- Load the project by double clicking **CPS.codeproj** file



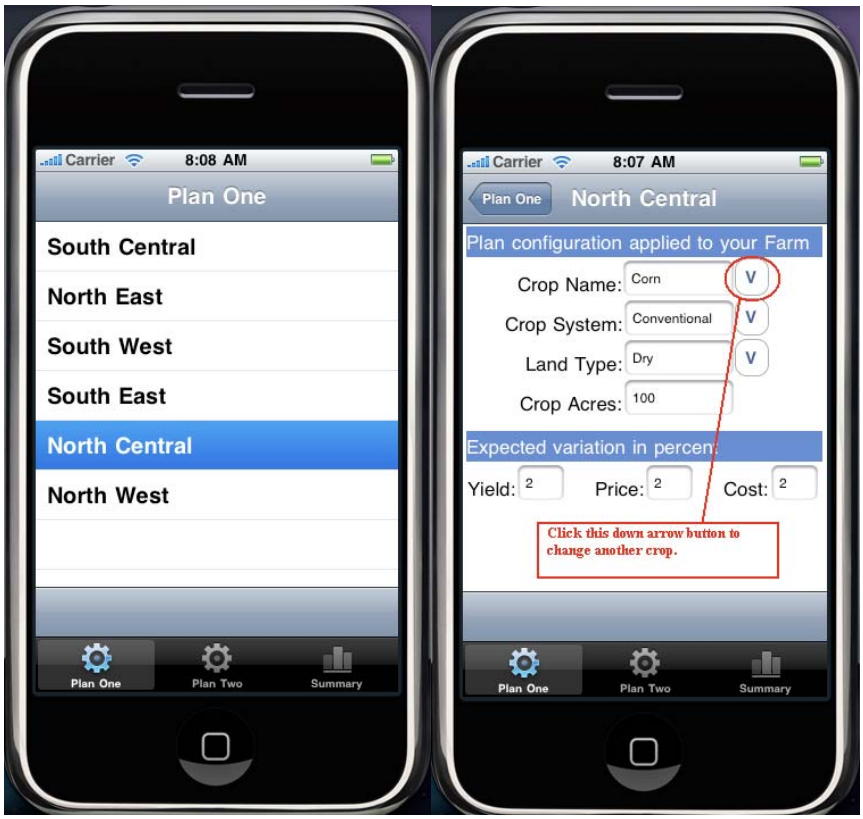
- Click on '**Build and Go**' icon.



3.2.1.1 Configure a Plan

Configuring a plan is a two step process.

- Select a region (e.g. North Central)

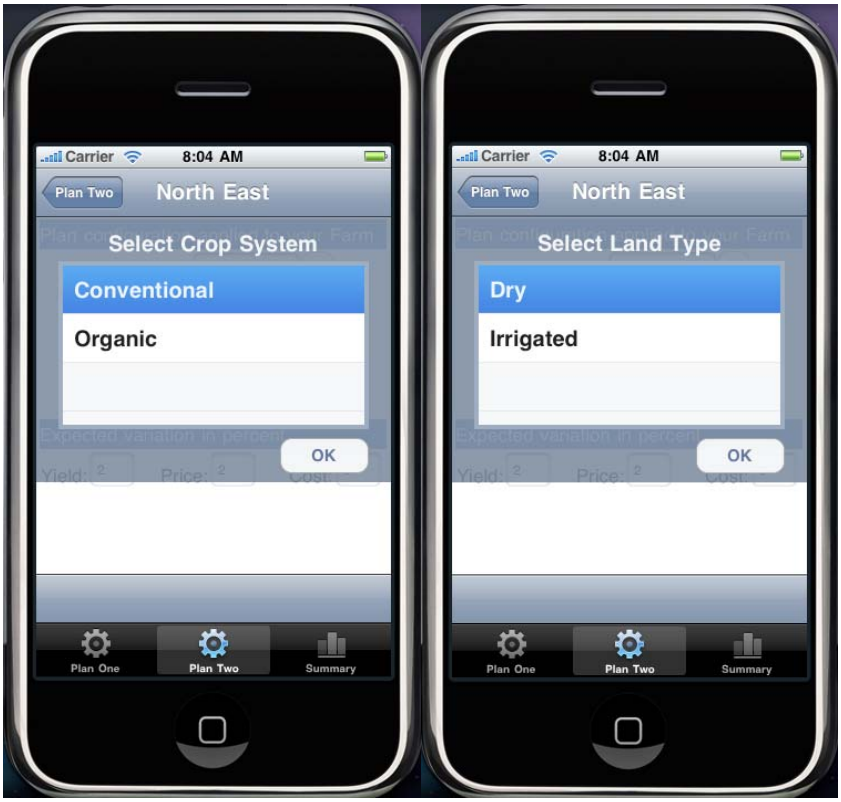


- For convenience all fields are populated except “Expected Variation”. Change the value of Crop, Land Type, Crop System and Crop Acre that apply to your farm.

3.2.1.2 Configure Crops, Crop System and Land Type

To change Crop, Crop System and Land Type, tap the down arrow button. This will invoke a selection list. Select the desired value and tap the ‘OK’ button. Below are few screenshots.

Carrier
8:01 AM
Plan One
North East
Plan configuration applied to your Farm
Crop Name: Corn
Crop System: Conventional
Land Type: Dry
Crop Acres: 100
Expected variation in percent
Yield:
Price:
Cost:
Click on these button to change values of those fields.
Plan One
Plan Two
Summary
Carrier
8:02 AM
Plan One
North East
Select a Crop
Soybeans
Corn
Wheat
OK
Plan One
Plan Two
Summary


Carrier
8:04 AM
Plan Two
North East
Select Crop System
Conventional
Organic
OK
Plan One
Plan Two
Summary
Carrier
8:04 AM
Plan Two
North East
Select Land Type
Dry
Irrigated
OK
Plan One
Plan Two
Summary

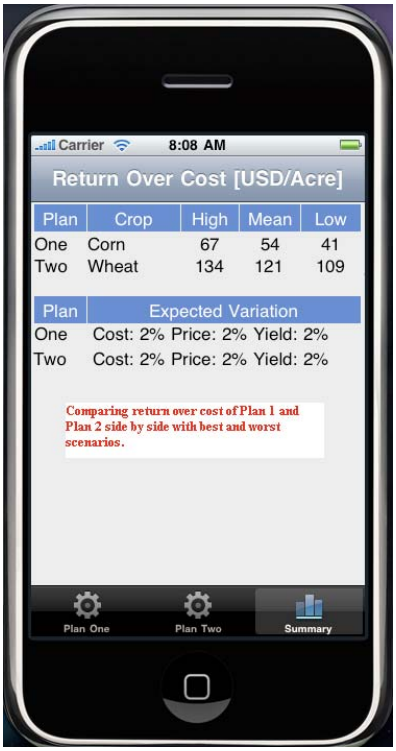
3.2.1.3 Expected Variation

For each plan, there will be an “Expected Variation” table where the user can enter “Yield”, “Cost” and “Price” that can vary at the user’s farm. The expected variation data helps estimate the best and worst of potential profit along with the average. To enter expected variation data, type a number and tap ‘Done’. Selecting ‘Done’ will cause the number pad to disappear.

3.2.1.4 Plan Comparison and Summary

To view a plan comparison side by side, configure both Plan 1 and Plan 2. Then select the ‘Summary’ tab. The system should display a “Return Over Cost” summary table, if an expected variation value is entered a the system will also display best and worst scenarios.

Carrier
8:07 AM
Plan Two
North Central
Plan configuration applied to your Farm
Crop Name: Wheat
Crop System: Conventional
Land Type: Dry
Crop Acres: 100
Expected variation in percent
Yield: 2
Price: 2
Cost: 2
Plan One
Plan Two
Summary
Carrier
8:07 AM
Plan One
North Central
Plan configuration applied to your Farm
Crop Name: Corn
Crop System: Conventional
Land Type: Dry
Crop Acres: 100
Expected variation in percent
Yield: 2
Price: 2
Cost: 2
Plan One
Plan Two
Summary


Carrier
8:08 AM
Return Over Cost [USD/Acre]
Plan Crop High Mean Low
One Corn 67 54 41
Two Wheat 134 121 109
Plan Expected Variation
One Cost: 2% Price: 2% Yield: 2%
Two Cost: 2% Price: 2% Yield: 2%
Comparing return over cost of Plan 1 and Plan 2 side by side with best and worst scenarios.
Plan One
Plan Two
Summary

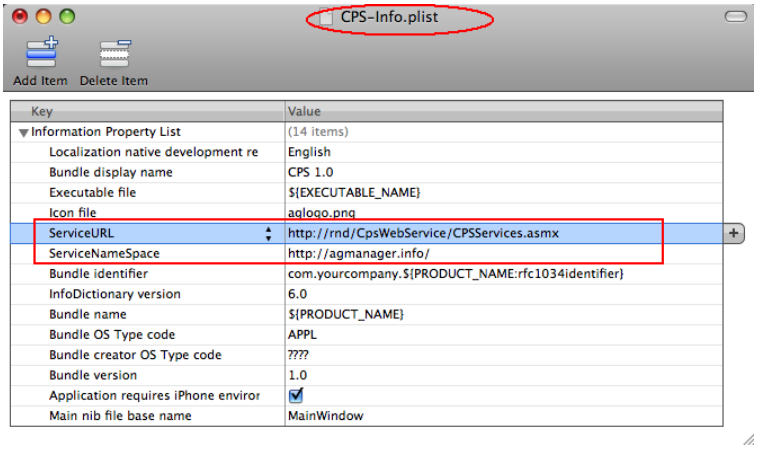
4 FAQ and Troubleshooting

This section provides information on frequently asked problems and how to troubleshoot the reported problem.

4.1 CPS iPhone Frequently Asked Question (FAQ)

4.1.1 When launching the iPhone application, I get service not available error. What should I do?

Answer: Open CPS-Info.plist file and make sure the ServiceURL and Service Namespace is configured correctly as per your installation.



4.1.2 When I click on ‘Summary’, I get Incomplete Plan. What should I do?

Answer: To display summary, system requires at least one plan to be configured. Please click on either Plan One or Plan Two, select a region, and enter all required values like Crop, Crop System, Land Type and Total Acre. Then, click on ‘Summary’ tab.

4.1.3 I have found a bug with the Application. What should I do?

Answer: Please contact either Dr. Andresen [dan@ksu.edu] or Dr. Hikaru [hpp@ksu.edu] or Reza Nabi [reza@ksu.edu]. We will address it in our next release.

4.1.4 I have an enhancement request. Who should I contact?

Answer: Please contact either Dr. Andresen [dan@ksu.edu] or Dr. Hikaru [hpp@ksu.edu] or Reza Nabi [reza@ksu.edu]. We will address it in our next release.

4.1.5 I am having problem Installing CPS iPhone application. What should I do?

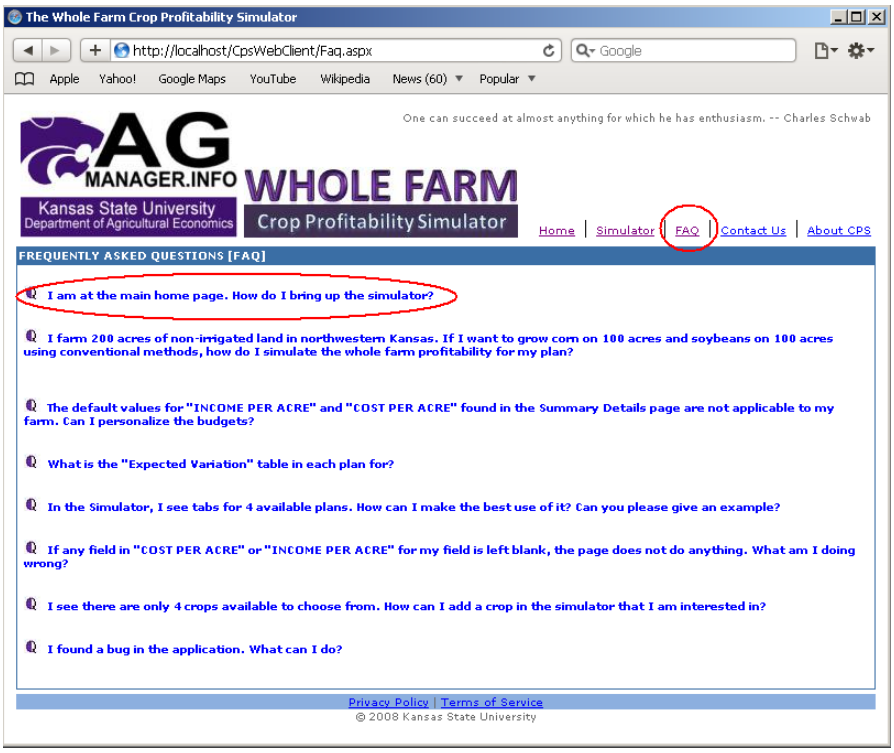
Answer: Please contact Reza Nabi [reza@ksu.edu]. We will help you to resolve the problem you are encountering.

4.1.6 I want to install this CPS iPhone application to real iPhone device. How can I do that?

Answer: As soon as we package CPS iPhone application via apple, you should be able to download and install the application to either iPhone or IPod touch from Apple store. We have plan to do this over the summer. Stay tuned!

4.2 CPS Web Application FAQ

A detailed version of the Fequently Asked Questions (FAQ) section is available for the Web application. To access the FAQ page, load the CPS web application and click on 'FAQ' link.


The Whole Farm Crop Profitability Simulator
http://localhost/CpsWebClient/Faq.aspx
Google
Apple
Yahoo!
Google Maps
YouTube
Wikipedia
News (60)
Popular
One can succeed at almost anything for which he has enthusiasm. -- Charles Schwab
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FREQUENTLY ASKED QUESTIONS [FAQ]
I am at the main home page. How do I bring up the simulator?
I farm 200 acres of non-irrigated land in northwestern Kansas. If I want to grow corn on 100 acres and soybeans on 100 acres using conventional methods, how do I simulate the whole farm profitability for my plan?
The default values for "INCOME PER ACRE" and "COST PER ACRE" found in the Summary Details page are not applicable to my farm. Can I personalize the budgets?
What is the "Expected Variation" table in each plan for?
In the Simulator, I see tabs for 4 available plans. How can I make the best use of it? Can you please give an example?
If any field in "COST PER ACRE" or "INCOME PER ACRE" for my field is left blank, the page does not do anything. What am I doing wrong?
I see there are only 4 crops available to choose from. How can I add a crop in the simulator that I am interested in?
I found a bug in the application. What can I do?
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References

[1] Reza Nabi. Vision Document [Online]. Available: http://cis895.nabi.us/
[Accessed: April 2010]